

CGGBP1 (K-14): sc-102434

BACKGROUND

Fragile X syndrome is the most frequent form of inherited mental retardation and is the result of transcriptional silencing of the FMR1 (fragile X mental retardation) gene on the X chromosome. The FMR1 gene contains a distinct CpG dinucleotide repeat located in the 5'-untranslated region of the gene which, in fragile X syndrome, is substantially amplified and subject to extensive methylation and enhanced transcriptional silencing. CGGBP1 (CGG triplet repeat binding protein 1), also known as CGGBP or p20-CGGBP, is a 167 amino acid nuclear protein that influences FMR1 expression. Highly expressed in thymus, placenta, lymph nodes, cerebral cortex and cerebellum, CGGBP1 binds to the 5'-(CGG)_n-3' repeat in the promoter of the FMR1 gene and positively regulates expression of the FMR1 protein. Binding of CGGBP1 to the FMR1 promoter is inhibited by cytosine-specific DNA methylation of the protein binding motif, suggesting that CGGBP1 activity is silenced in FMR1-affected individuals.

CHROMOSOMAL LOCATION

Genetic locus: CGGBP1 (human) mapping to 3p11.1; Cggbp1 (mouse) mapping to 16 C1.3.

SOURCE

CGGBP1 (K-14) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of CGGBP1 of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-102434 X, 200 µg/0.1 ml.

Blocking peptide available for competition studies, sc-102434 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

CGGBP1 (K-14) is recommended for detection of CGGBP1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

CGGBP1 (K-14) is also recommended for detection of CGGBP1 in additional species, including equine and porcine.

Suitable for use as control antibody for CGGBP1 siRNA (h): sc-78374, CGGBP1 siRNA (m): sc-142304, CGGBP1 shRNA Plasmid (h): sc-78374-SH, CGGBP1 shRNA Plasmid (m): sc-142304-SH, CGGBP1 shRNA (h) Lentiviral Particles: sc-78374-V and CGGBP1 shRNA (m) Lentiviral Particles: sc-142304-V.

CGGBP1 (K-14) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

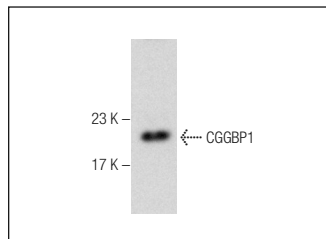
Molecular Weight of CGGBP1: 20 kDa.

Positive Controls: CCRF-CEM nuclear extract: sc-2146 or K-562 whole cell lysate: sc-2203.

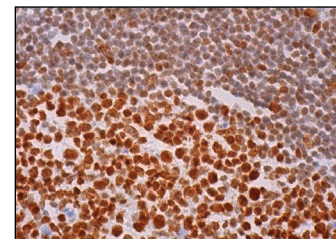
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 3) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



CGGBP1 (K-14): sc-102434. Western blot analysis of CGGBP1 expression in CCRF-CEM nuclear extract.



CGGBP1 (K-14): sc-102434. Immunoperoxidase staining of formalin fixed, paraffin-embedded human lymph node tissue showing nuclear staining of cells in germinal centers and cells in non-germinal centers.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.



Try **CGGBP1 (G-12): sc-398347** or **CGGBP1 (G-8): sc-376482**, our highly recommended monoclonal alternatives to CGGBP1 (K-14).